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WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

OCT 3 1936

Not for publication without
prior consent of this division.

REPORT FOR THE WEEK ENDING OCTOBER 3, 1936.

HAVRE: (Report for the two weeks ending October 3, 1936.)

The past two weeks have been warm and dry. A maximum of 93° on September 21 was the highest ever recorded for that late in the season. Wind movement on two days was excessive, soil blowing occuring in some localities. Precipitation for April - September totalled only 4.36 inches, or 45 percent of normal. The month of September was the driest on record in certain sections of northern Montana. Evaporation was especially great, 6.065 inches being reported at the station, an all time high mark for September.

Some additional dates of planting crested wheatgrass and winter wheat have been made, but none has shown much evidence of germination. Thirty-six acres of winter rye were sown on fallowed land on the general farm. Other station activities included building and repairing fences in connection with cattle lots, hauling hay, and cleaning up manure in the corrals. For the first time in a number of years, a swampy glacial lake bed on station property became dry enough to permit the use of machinery in constructing a long needed drainage ditch across the area, which may eventually permit the reclamation of some of this land for hay. An inspection trip to determine the amounts of forage remaining in various pastures of the Bear Paw lease was made during the past week. In spite of lack of rains, the pastures in general appear to have been only moderately grazed, indicating that the present stocking rate is not excessive, even in dry seasons.

Station visitors included R. D. Mercer, Extension Agronomist; H. M. Hansmeier, Assistant Secretary of the Montana Seed Growers' Association; and V. E. Iverson of the Horticultural Department, all of Montana State College.

Maximum temperature, 93°; minimum, 23°; precipitation, 0.04 inch.

JUDITH BASIN:

Light showers were received on the 29th and 30th; otherwise the week was a continuation of dry, fall weather that has prevailed since the first week in September. A few fields of winter wheat were injured by soil blowing last week, and there are scattering reports of depletion of stands of winter wheat from drought. On the Station winter wheat plots are in good thrifty condition, but additional moisture would put all seedings in better condition to enter the winter.

Maximum temperature, 78°; minimum, 29°; precipitation, 0.06 inch.

HUNTLEY:

Warmer weather during the week, together with the moisture from the recent showers, has sprouted fall-sown grains, and on some plots satisfactory stands have emerged. Farmers have reported early-sown fields as having good stands, but in most places more rain will be needed soon to put the wheat in good condition for the winter. Crested wheatgrass and range grasses are showing a little new growth. This is yet too small to be of much value for grazing, but it at least indicates that the plants are not dead as a result of the severe drought and insect injury of the last summer.

The improved soil moisture condition has speeded up fall seeding on the neighboring wheat farms. Volunteer grain is showing a good stand in some fields, and present plans are to let much of this acreage go toward making a crop next year if the winter survival is good. Much of the volunteer grain is being pastured.

J. M. Stephens and J. T. Sarvis of the Mandan Station, were visitors during the week.

Maximum temperature, 79°; minimum, 25°; precipitation, none.

SHERIDAN:

Temperatures slightly below the average prevailed over the week. With no precipitation the moisture received last week is rapidly being lost from the soil. Fields intended for bulk spring seedings were duckfooted, and a fall seeding of grasses was made.

J. M. Stephens and J. T. Sarvis were at the station on the 1st.

Maximum temperature, 80°; minimum, 28°; precipitation, none.

DICKINSON:

No rain fell during the week. The first three days were mild, then the temperature dropped to 12° on the morning of October 1. This killed the last of the green plants that had survived the drought and previous frosts. Artichoke was the only field crop still growing. This had endured the drought but had made little growth until after the showers late in August when growth was resumed. Artichoke 26724, the more vigorous of the five selections, was about 4 feet tall and blooming when killed. This, incidentally, was the greatest growth of any crop planted in 1936. Yield of tubers was very light on each of the selections.

Maximum temperature, 76°; minimum, 12°; precipitation, none.

Precipitation in September, 0.23 inch; precipitation, January - September, 9 months, 5.05 inches; precipitation past 12 months, 6.28 inches; precipitation past 13 months, 6.35 inches. Evaporation for 6 months, April to September was approximately 53 inches. The 29-year average was 34 inches. The highest previous record was 47 inches, in 1934.

ARCHER:

The station was on the outer edge of the storm that caused so much damage in the Denver district. At the station the total precipitation of the storm was 0.16 inch, 0.08 of which occurred during this week. The temperature dropped to 28°.

Owing to drought, the winter cereals are not making the desired growth; and most of the trees, except the Chinese elm, are losing their leaves.

Work at the station consisted of fencing the corn field into plots for pasturing lambs. The lambs were turned into the plots October 1. On this date the potatoes are being dug.

J. M. Stephens and J. T. Sarvis of Mandan, H. M. Davidson of the National Park Service, and G. H. Starr, Pathologist of the University of Wyoming, visited the station during the week.

Maximum temperature, 74°; minimum, 28°; precipitation, 0.08 inch.

NORTH PLATTE:

Temperatures have lowered to or near the freezing point during the week. On October 2 a light frost was recorded. Most of the week was cloudy but very little rain fell. During the past 6 months 9.74 inches of precipitation was recorded, which is 5.31 inches below normal. Precipitation since January 1 is 11.19 inches.

The sorgo and early kalo were harvested from the D.L.A. plots this week. No wheat has emerged except that seeded on summer tilled ground. The fourth crop of alfalfa has been cut, but the cool days have delayed stacking.

The annual fall feeders' day was held on October 26. 250 feeders attended. J. M. Stephens and J. T. Sarvis were present for the meeting. H. M. Tysdal and J. H. Martin visited the station during the week.

Maximum temperature, 68°; minimum, 32°; precipitation, 0.20 inch.

AKRON:

There was 0.23 inch precipitation Sunday morning. Monday opened with a heavy snow falling, which continued unabated until sometime that night. This snow was all melted by Wednesday afternoon with practically no run-off. The surface soil has received a good soaking this fall. This was welcome precipitation, but two weeks too late for best results It will insure uniform stands of the recently seeded station winter wheat and rye, on all soil preparations. The snow amounted to 2.58 inches of precipitation. It made the total for September 3.03 inches as compared to an average of 1.40 inches.

The corn binder was run today for the first time this week. About three more days of corn binder harvesting, and the station will be ready to begin threshing the late spring seeded crops.

J. M. Stephens and J. T. Sarvis were here Monday.

There were two readings of 31° during the week, but the sky was cloudy and there was no evidence of frost even on tomato vines located in low spots.

Maximum temperature, 68°; minimum, 31°; precipitation, 2.94 inches.

MANDAN:

Agronomy - A heavy killing frost during the week destroyed a large percentage of newly emerged annual weeds, which had made quick response to mid-September rains. Small grains and corn, both delayed emerged and volunteer, were also largely destroyed.

Maximum temperature, 70°; minimum, 18°; precipitation, none.

Arboriculture - The taking of fall notes, heights and diameters, in the various tree blocks has been completed during the week. Collection of green ash seed, of which there is a heavy crop this year has commenced. The freezing temperatures of the past week have checked all plant growth, and leaves are now rapidly falling.

Horticulture - After the low mark of 18° there is very little green vegetation left. After the 1 inch rain received during the middle of September, vegetables in the various plots took on a semblance of life. Onions, beans, radishes, etc., planted in April germinated, and tomatoes in the breeding project set a fair crop of fruit. None of these matured and no yields were taken. Potatoes in the acre garden were the only crop realized of vegetables, except asparagus and rhubarb in the early spring.

Cannas were dug during the week and stored. Cuttings of geraniums and coleus were made earlier. Perennial asters are making a brave show as yet. This class of perennials seem very desirable for fall gardens in this section, certainly much more desirable than chrysanthemums, which for the last 2 years have been complete failures.

HAYS: (Report for the week ending September 26, 1936.)

The weather has been generally mild, dry, and at times breezy. Sorghum crops are at a standstill. Occasionally, a new head emerges on a fallowed plot or on a marginal row, but practically no grain is forming. Dwarf Yellow milo and Wheatland are developing a trace of seed on a few heads, but there is no probability of yields of as much as a bushel per acre even on fallowed plots.

Soil sampling during the week reveals the fact that cropped land that has been prepared for wheat has lost all the moisture that has been added to it by rains since harvest, and stubble land undisturbed by tillage is likewise dry. Fallowed plots show moisture to the depth of 2 - 3 feet. Thus far the surface soil has remained moist after rains too short a time since harvest to start volunteer. This in itself is fairly good evidence that the soil has been, and is dry. Although this condition prevails over a large area, sufficiently heavy rains occurred in localities as close as 12 to 18 miles to develop a thick stand of volunteer.

During the week outside work has been confined largely to soil moisture determinations.

Maximum temperature, 93°; minimum, 48°; precipitation, 0.07 inch.

HAYS:

Light rains September 27, 28, and 29 moistened the top soil, but not deep enough to make wheat seeding safe for a stand on cropped land. Drilling at this time would turn up about all the moist soil and the seed would lie close to dry soil below. Fallowed plots will be seeded immediately, as they are in good condition for seeding, and the best average time for planting is passing. Seeding of cropped land, however, will be temporarily delayed hoping for enough rain soon to give good germination.

Four drills were used today for seeding a block of uniformly fallowed ground. The following drills were used: 10-inch spaced disk, (John Deere), 14-inch spaced disk furrow, (Peoria), 14-inch shovel or furrow type, (Dempster), and 20-inch furrow made with shovels, (Peacock). The Peacock drill makes deep furrows 20 inches apart and does not sow any seed in the bottom of the furrow, but places a row of wheat on each side of the furrow 3 inches from the middle of the furrow. These rows of wheat are 6 inches apart and it is 14 inches across the ridge to the next row of wheat. In other words the wheat is drilled in the sides of the ridges, and the distance between rows is 6 and 14 inches alternating. All four of these drills and an 8-inch spaced disk drill, (Thomas) will be used on uniformly prepared cropped land. Two plots will be seeded with each drill.

Sorghum crops remain about the same as indicated in the last report.

Maximum temperature, 76°; minimum, 39°; precipitation, 1.05 inches.

COLBY:

A gentle rain of 1.68 inches, which continued at intervals during the last four days of September, put the ground in excellent condition for seeding wheat. The rain was scarcely more than a drizzle at any time so that there was no run-off. It was cloudy most of the time during the four days, so there was very little evaporation Nearly every morning since it has been misty and foggy, so that even the surface has not dried out much. The moisture soaked down about 8 inche

All the winter wheat plots were seeded yesterday, and the rye was seeded this morning. The ground was almost too wet for good work, but the seed is covered well and the ridges will be cloddy enough when they dry out to resist blowing fairly well. All the plots were clean, except those stubbled in. The stubbled in plots never had any stubble but were covered with thistles up to 8 inches high. Grasshoppers were rather thick in the thistles.

The seeding this year was done with the tractor. A very good job was done, and the work was speeded up considerably. With the 10 hole drill behind the tractor it was possible to seed all of the 129 plots of wheat in one day.

Maximum temperature, 72°; minimum, 35°; precipitation, 1.68 inches. Precipitation for September, 2.49 inches; precipitation, January - September, 9.47 inches; 49-year average, 15.31 inches.

GARDEN CITY:

Total precipitation for the month of September is 1.58 inches, normal for the month, 1.75 inches. The total rainfall so far this year is 11.61 inches, normal for the same period, 15.34 inches.

Field work this week consisted of plowing the A and No. 1 plots of the M.C. wheat series, drilling wheat, (Kanred) and taking soil samples on the evaporation plots.

Visitors were J. H. Parker, Kansas State College; A. F. Swanson, Fort Hays Experiment Station; and A. E. Aldous, Kansas State College.

Maximum temperature, 77°; minimum, 37°; precipitation, 1.07 inches.

TUCUMCARI:

The thermometer reached a low of 32° on September 27 and again on the following morning, but very little frost injury occurred. This is the lowest on record here for September. During the first half of the month the mean temperature was 77°, for the last half 61°.

Work included harvesting cowpeas, drilled sorgo plots and increas... and some 10 acres of rowed Sudan grass. Broomcorn was again pulled, and early cut cowpeas were hauled and weighed. Very few sorghum plots have been harvested, as green heads remain on the most of them. General harvesting will not be done until frost occurs.

Maximum temperature, 81°; minimum, 32°.

BIG SPRING:

A week of welcome sunshine has prevailed after two weeks of rainy, cloudy weather. Rainfall for the month of September totaled 10.52 inches, which is the maximum recorded for this month since 1900. Only during the past three days has the soil been dry enough to get into the fields. After a two weeks lay off, cotton pulling is in full swing. Most cotton samples being brought in show two to three grades below what they were before the rain. Station work has consisted of picking cotton in the varieties and spacing, and heading milo in the rotations.

Maximum temperature, 80°; minimum, 37°; precipitation, 0.53 inch.

WOODWARD:

October 1 apparently ended the long spell of misty, rainy weather, which gave for September a total of 3.53 inches with practically no run-off. The past two days have been clear and windy.

Wheat over the past week has made good growth, and the sorghums so great a leaf and height growth it is indeed difficult to recognize them for the stunted ones of a month ago. Most of the common ones, such as milo and kafir, are just heading and have little chance to mature grain.

Various asters are the greatest floral show the station affords.

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WEEKLY STATION REPORTS

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DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

OCT 10 1936

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REPORT FOR THE WEEK ENDING OCTOBER 10, 1936.

JUDITH BASIN:

The weather for the past week has continued to be dry and unseasonably warm. Maximum temperatures of 82°, 80°, and 91° were recorded for the last three days of the week. Stands of winter wheat and pastures are showing the effects of the drought that has prevailed since the first week in September.

Maximum temperature, 91°; minimum, 33°; precipitation, 0.01 inch.

HUNTLEY:

Typical Indian summer weather has prevailed throughout the week, enabling farmers to make great progress with fall work. Much of the winter wheat seeding is now completed, and on early-planted fields the crop is coming up with fair to good stands. Winter wheat planted in the smut nursery September 30 has emerged nearly 100 percent. That in the field plots is all up on every seeding method except stubbling-in, and the M.C. series. Field work during the week has consisted of husking corn from the seed blocks; mowing, hauling, and stacking seed-alfalfa; and repairing fences.

Maximum temperature, 87°; minimum, 37°; precipitation, trace.

SHERIDAN:

Following a light rain on the 5th, the week was mostly fair with rather unseasonably high temperatures a few days. The rain was just about sufficient to replace the moisture lost since the previous rain on the 25th of September. The most of the fall grain sown has emerged. Considerable fall grain is now being sown in nearby territory. In some sections rain was sufficient so that conditions are fairly good for fall seeding, but here there is danger of a lack of moisture to sustain growth, or even to keep the grain alive unless more moisture is received soon.

A start was made in taking fall notes on the 1931 shelterbelt plantings. Growth this summer was very small.

Maximum temperature, 81°; minimum, 32°; precipitation, 0.51 inch.

DICKINSON:

Most of the week was fair and warm with no high winds. Fall plowing of the rotations was completed with the soil absolutely dry. During the past 13 months the heaviest showers have wet the soil only about 3 inches, consequently it is not so compact as usual. On plots that were plowed last fall or spring the soil simply shoved over without turning in a typical manner and is a loose dust or a small-clod mulch to the depth of plowing. This is now ridged slightly, so it probably will not drift unless extremely high winds come soon. Land that was in corn or fallow in 1935, or where snow water wet it in the spring, plowed up rough and very cloddy. Unless snowfall is above normal, these clods will be dry and hard in the spring. The surface of the soil is now dry and usually fine and dusty, so that moderate winds raise dust over the landscape. Considerable drifting is likely during the winter on bare smooth soil, unless precipitation comes before freezing.

Mr. Hoovestal, Chicago, Great Western Railway, J. M. Stephens, and J. T. Sarvis were visitors during the week.

Maximum temperature, 83°; minimum, 31°; precipitation, none.

MANDAN:

Agronomy - The past week has been mild for the most part. Today, October 10, it is cloudy and cool with indications of rain or snow. There was one day of high wind.

Maximum temperature, 88°; minimum, 30°; precipitation, none.

Arboriculture - The collection of green ash seed has been completed during the week. This seed has been threshed and part of it stratified. Russian-olive, chokecherry, and hackberry seed have also been stratified. About 25 pounds of redcedar seed has been collected from the trees in the testing block. This seed is less than 50 percent good this year. Several fully developed blossoms were found on a species of Craetaegus during the week. The same tree also bore a heavy crop of mature seed.

ARCHER:

The weather during the week ending October 10 was cool, the forepart was threatening and the latter part clear. The condition of winter cereals remains unchanged. Those seeded on fallow during August are in fair condition, those seeded on fallow September 1 are in a poor condition, and those seeded on cropped land have not emerged.

In this locality livestock are in fair to good condition, and there appears to be sufficient winter grazing and stored forage to carry them through the winter under ordinary conditions.

Work at the station consisted of digging potatoes, husking corn, and plowing the early-fall-plowed rotation plots. The ground was very dry, therefore the plowing was done with the one-way to a depth of 5 inches. The shocked corn is dry, but the wind is making the handling of this crop difficult.

Tom Barnes of the Survey of Federal Archives visited the station October 9.

Maximum temperature, 74°; minimum, 24°; precipitation, 0.10 inch.

NORTH PLATTE:

The week was mostly cool, and no rain of any consequence was recorded. The first killing frost was recorded on October 7. This date is a few days later than normal. Light frosts are being recorded nearly every night.

The bulk planting of early kalo was headed during the week. A fair yield of approximately 15 bushels per acre is expected. Several bushels of seed will be available for distribution. Some of the summer tilled plots of winter wheat have fair stands but coverage is very poor. The prospects for winter wheat in western Nebraska will again be below normal.

Maximum temperature, 75°; minimum, 25°; precipitation, 0.02 inch.

AKRON:

A light shower Monday night was not sufficient to stop field harvesting. The first noticeable frost occurred Tuesday night, the 6th, when a minimum of 30° was recorded. This killed only the more tender sorts of vegetation such as tomatoes, beans, and melons. The harvesting was finally completed, and a start made at threshing the late spring-seeded crops, the proso variety experiment being threshed this week end. Beans were turned to facilitate drying after the heavy rainfall of last week.

Winter wheat is emerging on fallow land preparation. It is well sprouted and should emerge soon on all types of soil preparations.

The Smith-Hughes class and instructor, Mr. Ostermiller, of the Yuma Union High School visited Friday to study shrubs and trees. High G. Porterfield and F. R. Stansbury of the Amarillo office of the Soil Conservation Service visited during the week.

Maximum temperature, 72°; minimum, 30°; precipitation, 0.16 inch.

COLBY:

The weather has remained generally cool and damp with very little wind until yesterday, when a high wind blew all day stirring up considerable dust and causing some soil blowing. The temperature dropped to 32° on the morning of the 7th and again the following morning. No damage was apparent, except that the tips of tomato vines were nipped.

Wheat seeded last week is just beginning to come through the ground. Moisture samples were taken during the week. The moisture is down between 10 inches and 1 foot on the continuously cropped land, 20 to 24 inches on summer fallow, and from nearly 6 feet to below 6 feet on the new plots where the land has been fallow since 1933.

Maximum temperature, 79°; minimum, 32°; precipitation, 0.12 inch.

HAYS:

The weather has been generally cloudy and damp. Surface soil has been too wet for field work about half the time. Precipitation during the past two weeks has penetrated the soil to a depth of about 12 inches. The top soil, regardless of method of seedbed preparation, is in excellent condition for seeding wheat and a good stand should result. Seeding of wheat on the plots is being finished today. All fields in this locality not already seeded are now being rapidly sown. Perhaps 75 percent or more of the seeding is done. Considerable of the wheat is already up to a fine stand.

Maximum temperature, 82°; minimum, 37°; precipitation, 0.89 inch.

GARDEN CITY:

Three rains this week totaled 0.85 inch, which will help the wheat considerably that is just coming up. Soil samples taken this week on the wheat plots show moisture to a depth of 2 feet on the fallow plot and about 11 inches on the cropped plots. There has been no killing frost at the station as yet, but down in the valley the sweet potato vines have been nipped.

Sorghum harvest on the Dry Land project has not yet begun, but is getting under way on the State project where the crop will be used for feed. Winter rye was drilled the first of this week.

R. F. Cox of the Animal Husbandry Department, Kansas State College, was a visitor at the station.

Maximum temperature, 85°; minimum, 35°; precipitation, 0.85 inch.

TUCUMCARI:

Frost has not occurred, although it has threatened several times the past week. Early sorghum heads have ripened rapidly, but sucker heads and those on branched stalks are barely past the bloom stage and seem to progress but slowly.

Binding of late corn variety plots, a number of rotation kafir plots, the early forage sorghum varieties, and broomcorn plots has been performed. Some rotation milo plots and early varieties in

the grain sorghum block have been headed. The first picking of cotton was made this week, and the late cowpea plots were hauled and weighed. Heading of rotation milo will continue next week, but cutting of the remaining plots of grain and forage sorghums will doubtless be delayed until frost.

Maximum temperature, 83°; minimum, 35°; precipitation, 0.19 inch.

DALHART:

Winter rye which was planted two weeks ago is now up to stands and gives promise of getting established on the scant moisture which is available. While less than half an inch of rain was received just previous to planting, there are good stands in the trees and vineyard. In most places there is no moisture available for growth. The rotation rye and winter wheat plots have not been seeded, because it was felt that soil moisture was insufficient for stands to become established.

The 12 or 14 plots of milo which were left for grain are now just about mature. Kafir plots are still immature. Yields, as previously reported, are going to be much lower than last year.

Maximum temperature, 83°; minimum, 35°; precipitation, 0.02 inch.

BIG SPRING:

Weather conditions have been very favorable for field work during the past week, although cold nights have slowed up plant growth somewhat. Another month or more of favorable growing weather is very much needed to mature some of the late feed, which had made little growth before the rains.

All roadways, orchard, vineyard, and evergreen plantings were seeded to barley during the week to prevent soil blowing this winter. Other work has consisted of heading milo plots and increase milo; some increase Sumac was also harvested.

E. B. Reynolds and T. R. Richmond of College Station visited the station during the week.

Maximum temperature, 89°; minimum, 42°; precipitation, none.

WOODWARD:

The past week has been cold and cloudy, with rain on four days amounting to a total of 1.56 inches. This brings the total rainfall since the first of September to 5.10 inches. There has been rain on 22 of the past 40 days and on 21 of the past 30 days. Sorghums made a very rapid, soft, sappy, leafy growth over the forepart of this rainy spell. They have developed very slowly over the past two weeks because of low temperatures. There is danger of lodging because of the lack of stiffness in the heavy tops.

Wheat planted the forepart of September for pasture has made a growth of 6 to 12 inches, has stooled and rooted well, and is being grazed. The larger part of the wheat acreage was not planted before the continued rains put the soil in a condition too wet to work to kill volunteer and weeds. Farmers have been dodging showers to work the land and plant whenever possible. As there has been practically no run-off, especially on the sandier soil, wheat that is planted from now on should have abundance of moisture to carry it well through the winter.

The variety test of chrysanthemums on the station was never so loaded with buds, but these are opening very gradually due to cold weather. Cosmos, white, pink, and orange, make a sprightly show.

Grama grass planted the forepart of September has made a dense matted growth.

Visitors of the week were J. E. Smith and Dr. Whitfield of S.C.S.

Station work during the week consisted of working and drilling wheat and rye plots, taking soil samples, potting plants, budding trees, and repairing machinery.

Maximum temperature, 81°; minimum, 43°; precipitation, 1.56 inches.

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NOV 16 1936
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OCT 17 1936

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REPORT FOR THE WEEK ENDING OCTOBER 17, 1936.

HUNTLEY:

With the exception of one day, clear and windy weather prevailed throughout the week. A light shower was received on the morning of the 15th, but the moisture soon evaporated without benefit to vegetation. The winds of the last few days have stripped the leaves from most of the trees except Chinese elm, which as yet has shown no indication of autumn maturity. Their greenness is rather striking and in marked contrast to the bare limbs or yellow foliage of the other tree species.

Winter wheat is making a slow growth and all plots now have a good stand. The very slender leaves and dark color of the wheat plants indicate an unthrifty condition usually associated with a limited supply of available soil moisture. A good rain or snow will be needed soon to supply the deficiency and put the wheat in condition to withstand the winter. Old plantings of crested wheatgrass continue to make a good fall showing of green, but recovery of the newer seedings is very poor.

Maximum temperature, 82°; minimum, 33°; precipitation, 0.05 inch.

SHERIDAN:

Cool weather prevailed the most of the week, although there was one quite warm day for the season. One light rain kept moisture conditions at about the same level as since the one rain in September, just enough for temporary needs for newly emerged grain and for grass. Grass is now making some pasture. Grass sown October 2 is emerging.

Maximum temperature, 83°; minimum, 34°; precipitation, 0.30 inch.

DICKINSON:

Weather continued mild and dry. Conditions were unsettled on two days, but only a trace of rain fell. Strong winds on two days caused some soil drifting on bare fields. Trimming of trees in the orchard and shelter belt was continued. Some repair work was done on buildings and machinery.

Maximum temperature, 79°; minimum, 26°; precipitation, trace.

MANDAN:

Agronomy - Several days during the past week were cool and raw with high wind. Part of the nights were below freezing. A light rain fell on the 16th.

Maximum temperature, 71°; minimum, 24°; precipitation, 0.01 inch.

Horticulture - The horticultural nursery was dug on October 16. There is a good supply of apples and crabs and a fair supply of plums for horticultural cooperators, but the stand of currants, gooseberries, and grapes was poor. A large number of apple seedlings of known parentage are available for planting in the breeding blocks next spring.

The soil is quite dry, and rain would be very welcome to put the trees in better condition to endure winter.

Visitors during the week were, as follows: L. B. Thomson, Superintendent and G. N. Denike, Assistant Superintendent, Experiment Station, Swift Current, Canada; and F. E. Cobb and F. L. Kirby, of the U. S. Forest Service.

BELLE FOURCHE:

Unseasonably warm weather has prevailed during October to date, and no precipitation has been received. Strong winds have been of almost daily occurrence during the past week, but very little soil blowing has occurred. Field work in preparation for 1937 crops has been delayed in the vain hope that sufficient rain might be received to place the soil in workable condition, but owing to the latness of the season, an attempt is now being made to plow dry land rotation plots with a disk plow. The ground is so dry and hard that the attempt is meeting only mediocre success, and plowing of some of the spring grain stubble plots is practically impossible.

J. M. Stephens, Jr., Soil Conservation Service, Mandan, N.Dak., is a visitor at the station, directing the collection of tree seed.

Maximum temperature, 77°; minimum, 32°; precipitation, none.

ARCHER:

The weather during the week ending October 17 was mild and clear except during Thursday, October 15, when it was cold, cloudy, and threatening. These conditions were favorable for harvesting corn, digging potatoes, and storing feed crops.

Winter cereals seeded on fallowed land continue in the same condition as reported last week -- those seeded before September 1 are in a fair condition, those seeded September 1 and later are in a poor condition -- and those seeded on cropped land have not emerged.

Work at the station consisted of husking corn from the rotation plots. Samples of ears from each plot are being put in the granary to dry. Typical samples of stover are being selected for drying. This work will be practically completed today.

F. L. Duley, of the Research Division of the Soil Conservation Service, visited the station October 13.

Maximum temperature, 79°; minimum, 29°; precipitation, trace.

NORTH PLATTE:

Fair weather prevailed over this area during the week, no precipitation being recorded. Practically no rain has fallen during the first half of October. The variety plots, the D. L. A. plots, and bulk plantings of sorghums were threshed this week. Early kalo ranked the highest of all grain sorghums. In the large field plantings 15 to 25 bushels per acre were obtained.

Russel Garl, of the College of Agriculture, spent a few days threshing isolated alfalfa plots. C. O. Grandfield, Manhattan, Kans., visited the station this week.

Maximum temperature, 85°; minimum, 31°; precipitation, none.

COLBY:

Pleasant fall weather prevailed this week. There was no precipitation. Most of the time it was calm. The days have been comfortably warm, and the nights have been only moderately chilly. There were dews nearly every morning, but no frost.

The winter wheat and rye are up to good stands and growing nicely. The grasshoppers have not been very active lately, although many are still found on warm afternoons. Rabbits are rather plentiful and have been doing some damage to the newly sprouted wheat. The sorghums are still green on most of the plots, but are making practically no growth. Pastures have greened up only slightly since the recent rains.

Maximum temperature, 87°; minimum, 34°; precipitation, none.

HAYS:

The weather has been generally fair and mild.

The top soil is in fine condition and wheat is coming up. The first seeded is up to a good stand. Sorghums are at a standstill, except for the few heads that set grain and which are slowly developing. Perhaps enough mature milo heads may be gathered for next year's seed. Kafir will mature no seed. Sorghum on the commercial fields is now being harvested for silage.

Maximum temperature, 86°; minimum, 40°; precipitation, 0.40 inch.

GARDEN CITY:

No moisture was received this week and the weather has been clear almost continuously. The wheat and rye are coming up in fine condition but will need moisture in the near future, especially on those plots that were cropped this past season. As average date for frost is October 12, the sorghums are having a little longer than normal to mature. Most of the milo has matured though, and harvest will probably begin next week.

Field work consisted of drilling wheat in the roadways, spreading poison bran on the wheat plots for grasshoppers, and taking soil samples on the widespaced milo plots, the M. C. wheat plots A, B, C, and D, and on the evaporation plots.

C. O. Grandfield of the Department of Agronomy, Kansas State College, visited the station.

Maximum temperature, 84°; minimum, 39°; precipitation, none.

TUCUMCARI:

Beautiful fall harvest weather the past week has permitted harvesting to progress without interruption. Plots and increase seed blocks of milo were headed, Sudan grass was hauled and stacked, the first picking of cotton was made, and several early forage sorghum plots were cut. A station booth for the local county fair was prepared. The county was sharply divided on September 27, when frost severely damaged all localities above the cap-rock but failed to injure field crops in the valley. Community booths at the fair vividly show this line of demarkation.

Maximum temperature, 89°; minimum, 43°; precipitation, none.

DALHART:

The continued dry weather has made the seeding of winter wheat and rye rotations inadvisable. A temperature of 32° has been received, but it was not a killing frost. The only damage noticed was on a few cowpea leaves. This is the fourth consecutive dry year, but it is the first fall when the moisture received as insufficient to permit seeding with the expectation of getting stands.

Work during the week has consisted of harvesting milo grain and stover in the rotations, and the completion of harvesting sorghum varieties. Soil samples on the winter wheat, milo, and evaporation plots were taken.

Maximum temperature, 88°; minimum, 41°; precipitation, none.

BIG SPRING:

Weather conditions have been very favorable for harvesting during the past week, and as a result cotton pulling and milo heading has been in full swing. An unusually large acreage of wheat and barley is being planted for pasture this fall. Many have faint hopes of a

grain crop next year, but this is very doubtful unless unusually favorable moisture condition prevail at heading time.

Station work during the week has consisted mostly of heading and binding grain sorghum varieties and heading increase milo. All fallow and cowpea plots were duckfooted to prevent soil blowing.

Maximum temperature, 85°; minimum, 45°; precipitation, none.

LAWTON: (Report for the three weeks ending October 17, 1936.)

The ground dried very slowly after the 10.12 inches of rain that fell from the middle of September to the 27th. Wet soil delayed such field work as was necessary for the seeding of small grains until October 5, and only the drier spots could be worked at that time. Subsequent fall weather has been ideal, and seeding of wheat, oats, and barley and picking of cotton have made steady progress throughout the southwestern part of the State. Cotton harvest is rapidly nearing completion in Comanche County. Practically the entire crop has been snapped this year, and production will hit a very low figure.

Volunteer crops of wheat, oats, and barley will afford considerable early grazing this fall, but most of the wheat was seeded too late to provide much pasturage before late winter or early spring, unless unusual weather conditions obtain in the meantime.

Excellent seed beds were prepared with a minimum amount of labor for fall seeding on the station. The summer drought, however, prevented any distinction between early and late plowing for wheat and provided only a limited amount of dry foliage where cowpeas were to be plowed under for green manure.

Four and one-half acres of Tenmarq seeded October 5 and the rotation plots of wheat and barley seeded October 6 and 7 emerged to good stands by the 13th. Variety tests of wheat, oats, and barley were seeded October 13 and 14. About 5 acres of alfalfa were reseeded October 10, and indications of a good stand are apparent. One plot of alfalfa in Rotation 142 was seeded October 3, and a good stand was up by the 10th.

The maximum temperatures since October 1 have ranged from 61° to 85°, and the minimum range extended from 41° to 61°.

WOODWARD:

The past week has been clear, cool, and quiet. Due to sunshine, early planted wheat has made very rapid growth and may exhaust moisture early. Most of the wheat in this section, however, has come up over the past week, as a hundred mile trip disclosed, and should have ample moisture to carry it for several months. The same trip showed only one mature field of grain sorghum. Much sorghum is not yet even in head. There is no possibility that much of it will mature grain. Forage yields, while not heavy, will be substantial. On the station, many of the shorter season grain sorghums will mature good grain yields.

Some 30 varieties of chrysanthemums are now coming into bloom in a riot of colors, red, pink, white, bronze, and variegated. Asters in a dozen different shades have been in bloom for several weeks. They are most satisfactory for fall flowers, making banks of color so long. Roses are making a glorious finish, being especially large and fresh since the rains. Cosmos gives gayety to the landscape. Tree leaves are assuming rich autumn tones.

Maximum temperature, 82°; minimum, 46°; precipitation, none.

PENDLETON: (Report for the two weeks ending October 17, 1936)

Dry, warm weather still prevails in the Columbia Basin region. The soil is dry to a depth of about 4 inches, and conditions for fall seeding of wheat are very unfavorable. Fortunately in the area served by this station, spring sown wheat yields are equal to those of fall sown wheat. Unless heavy rains occur within the next few days, the acreage of fall sown wheat in this county will be very small. A few farmers are seeding "in the dust". This is not a very desirable method, as weeds and reduced stands often result. Forest fires have been a very serious problem in Western Oregon and the Coast section, destroying much valuable timber and many farmsteads. In eastern Oregon forest fires have been held to a minimum, with only slight losses. Deer hunters complain of dry conditions in the mountains, cracking twigs and dry grass making hunting difficult. On the station all the tender annuals are still in bloom. Delphiniums, aconitum, phlox, perennial asters, and violas are still blooming.

Maximum temperature, 79°; minimum, 29°; precipitation, none.

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N O T E

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NOV 16 1936
BUREAU OF PLANT IND

WEEKLY STATION REPORTS

OF THE DIVISION OF

DRY LAND AGRICULTURE

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

OCT 24 1939

Not for publication without
prior consent of this division.

REPORT FOR THE WEEK ENDING OCTOBER 24, 1936.

HAVRE: (Report for the three weeks ending October 24, 1936.)

Dry weather prevailed until the 18th, at which time a storm period occurred, attended by the first appreciable snowfall of the season. This moisture alleviated the drought, laying dust, and eliminating prairie fire hazards. Temperatures were somewhat above normal for the season, readings of 85° being reported on the 7th and 78° on the 17th. The minimum temperature was 14° on October 21.

Crested wheatgrass plantings were made in the new sod rotations on the 7th, under conditions too dry for germination. Many miscellaneous field activities have been completed during the past two weeks, and with the exception of raking and burning weeds, out-of-door work on the D.L.A. project is practically over. Seed supplies have been cleaned, and a check has been made of the amounts available. Owing to frequent poor crops in recent years, it has been difficult in some instances to maintain enough seed for experimental plantings.

Preparations in connection with livestock feeding work are about completed. A new cattle lot has been enclosed, and the boundary pasture fences have been gone over and repaired. The water in Beaver Creek is very deficient at the present time, and without a flow in this stream it will not be possible to begin winter feeding trials. Plans are also being made to begin some WPA work in connection with cleaning up the premises and reconditioning certain buildings.

Station visitors included F. B. Linfield; F. L. Duley of the Soil Erosion Research Division; and members of the Entomological staff at the State College.

Maximum temperature, 85°; minimum, 14°; precipitation, 0.34 inch.

HUNTLEY:

Light showers with a trace of snow occurred early in the week, and although the moisture received freshened up the seedling wheat to some extent it did not add much to the small amount stored in the soil. Heavy frosts following the storm period killed volunteer spring grains and most of the weeds. Crested wheatgrass did not appear to be affected. Field work consisted of weighing corn fodder, taking soil samples, and storing equipment used in the pastures.

Maximum temperature, 81°; minimum, 17°; precipitation, 0.23 inch.

SHERIDAN:

More rain and snow over the week finally added enough moisture to the soil so that now it appears that fall grain is safe in having sufficient moisture to go into the winter in fair condition. Plowing with a moldboard plow probably will also be possible now after the surface is dried sufficiently. No field work was possible, and only miscellaneous work could be accomplished during the week. Freezing weather was the first this fall to fully kill sorgo.

Maximum temperature, 81°; minimum, 16°; precipitation, 0.81 inch.

BELLE FOURCHE:

The heaviest storm since April 30 occurred October 19-20, when over 7 inches of very wet snow were received. A total of 0.76 inch precipitation was recorded, and there was no run-off as the snow melted. Moisture has penetrated the soil to a depth of approximately 5 inches, greatly improving soil conditions for plowing and for seeding winter grain. Pastures and nearby ranges will also be benefitted materially.

The weather turned unusually cold following the snow, and a minimum temperature of 0° occurred the night of October 21, when the sky cleared. There have been only 4 years in which lower temperatures have been recorded in October at this station.

J. M. Stephens, Jr., Soil Conservation Service, Mandan, N. Dak., was a visitor at the station during the forepart of the week.

Maximum temperature, 82°; minimum, 0°; precipitation, 0.76 inch.

ARCHER:

The weather during October 18 and 19 was warm, but the remainder of the week was cold with some snow, which melted today. Crop conditions remain about the same as last week. Work at the station consisted of finishing the husking of corn, storing stover and fodder, and sorting potatoes. The plowing of the late fall-plowed rotation plots is in progress.

W. L. Quayle visited the station October 19.

Maximum temperature, 73°; minimum, 17°; precipitation, 0.14 inch.

NORTH PLATTE:

This week brought the first touch of winter weather to this area. The temperature on Wednesday dropped to near the zero mark, and on Tuesday a heavy snow fell most of the afternoon. Many branches of trees were broken by the weight of the snow. The moisture will aid the winter wheat which has emerged, but a few warm days may bring up the wheat not yet sprouted, and unless more moisture is received, the seedlings will be killed by drought.

Husking field plots of corn was started this week. Yields averaged between 5 and 8 bushels per acre. Several bushels of seed corn have been selected for plots and bulk plantings.

Several Smith-Hughes schools from nearby towns visited the station Saturday for practice in judging livestock.

Maximum temperature, 81°; minimum, 13°; precipitation, 0.34 inch.

COLBY:

The weather has been much colder this week. The first killing frost of the season occurred on the morning of the 21st, when the temperature dropped to 27°. It remained under freezing all that day, and the minimum the following morning was 14°. It has been below freezing both mornings since. On the 21st it was snowy all day and most of the night. The total snowfall was 1.3 inches which netted 0.10 inch of water. All vegetation has been killed.

The sorghum plots were cut with a grain binder on the 19th before the freeze. There was no grain on any of the plots, except here and there along the edges. None of the plots were more than a fourth headed. In all but a few places the plants were less than 2 feet high.

Maximum temperature, 85°; minimum, 14°; precipitation, 0.10 inch; snow, 1.3 inches.

GARDEN CITY:

One inch of snow on Wednesday night marked the beginning of winter (0.09 inch of water). The temperature dropped to 20½°, which is the earliest for that temperature since 1912.

Sorghum harvest was completed this week, but the only milo grain obtained was from those plots on fallow or on the wide-spaced row plots. Only one kafir plot (88-inch rows) gave any grain and that was a very small amount. The broomcorn yielded no brush, and no grain yields were recorded on the sumac. The feterita gave a fair yield, considering the conditions.

Soil samples were taken on the MF milo plots L and M, on the MC milo plots A and B, and on the milo diked plot.

Maximum temperature, 86°; minimum, 20½°; precipitation, 0.09 inch.

TUCUMCARI:

The first actual killing frost of the fall occurred this week, with a temperature of 30°. Temperatures of 32° late in September injured only such tender vegetation as cowpeas and flowers.

Sorghum harvest has been completed with the exception of heading late planted milo and milo hybrids. Some kafir plots matured light, small, early heads, with a large number of sucker or branched heads in the milk stage when frost occurred. Others were so late, through drought, that the main heads were largely immature when harvest took place. A comparatively small percentage of forage sorghums matured, aside from Leoti Red and Darso in the early dates of planting.

Peanuts remain to be harvested, at least another picking will be made of cotton, and no threshing has been done. It is doubtful if sorghum threshing can be completed until well toward the close of November, due to the green condition of both stover and grain.

Wheat on the Plains will furnish considerable pasture, and native ranges are in fair condition, with considerable headed, matured grass. Grain production in this locality will be very light, but fair to light yields of sorghum bundle feed will aid in carrying livestock through the winter.

Maximum temperature, 85°; minimum, 30°; precipitation, 0.01 inch; total precipitation for the year to date, 12.49 inches.

DALHART:

Continued dry weather has made the seeding of the winter wheat and rye rotations inadvisable. Seedbeds are prepared for these crops, and they will be seeded the coming week whether moisture conditions are favorable or not. Work during the week has consisted of harvesting mature heads on the kafir plots, soil sampling, removal of bagged and selected seed heads, picking cotton for the second time (incidentally cotton will apparently make nearest normal yields of any crop planted), and finishing the weighing of cowpeas for hay.

Farmers continue to report poorer yields than last year, but there will apparently be sufficient roughage for feed.

Maximum temperature, 86°; minimum, 27°; precipitation, 0.02 inch.

Apparently the temperature of 27° which was reached about 9 a.m. Thursday was not a killing freeze -- plants which normally show injury with below freezing temperatures were not injured.

BIG SPRING:

Cold, rainy weather entirely stopped harvesting operations during the latter half of this week. During this three-day period 1.82 inches of rain was received and the minimum temperature dropped to 33°. It is hoped that the temperature will not go below this point for sometime yet, as there is a large amount of immature feed that needs two or three weeks more of growing weather before it should be harvested. This rain fell in such a manner that there was no run-off, and it will be a great help to the many wheat fields that have been planted for pasture.

Station work has consisted of picking cotton and heading milo. Maximum temperature, 90°; minimum, 33°; precipitation, 1.82 inches.

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WEEKLY STATION REPORTS

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OCT 31 1936

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REPORT FOR THE WEEK ENDING OCTOBER 31, 1936.

JUDITH BASIN:

Showers within the last 2 weeks have put the soil in good condition for the late seeding of crested wheatgrass, and 7 five-acre tracts of abandoned land were seeded to it with 2 types of drills and varying rates and methods of seeding. Other work on the station included, the seeding of winter wheat in a rate and date of seeding test and the seeding of crested wheatgrass in a date and method of seeding experiment. Work is progressing on the installation of a heating system in one of the service buildings.

Maximum temperature, 63°; minimum, 23°; precipitation, 0.40 inch.

HUNTLEY:

Weather during most of the week was fair and somewhat windy making field work possible every day. The principal activities on the dry-land plots were soil sampling, hauling and stacking corn fodder, and harrowing the corners off of the clods on the fall-plowed land. The ground was extremely dry when fall plowing was done and many large, angular clods were turned up. These have weathered down to the extent that they may be reduced somewhat and the openings between them filled in by harrowing. It will take considerable soaking before the clods will be entirely reduced.

The stand and condition of winter wheat and rye deteriorated during the week. Many of the seedlings appear to have been injured by wind, as the leaves are dry down to the surface of the ground but are green below that point. Some fields that were distinctly green a week ago now appear to have nothing on them.

Maximum temperature, 68°; minimum, 21°; precipitation, 0.02 inch.

SHERIDAN:

Weather conditions over the first half of the week were somewhat unsettled and cool, but the last three days were quite mild and pleasant, with temperatures for the entire week averaging somewhat above the normal for the season.

Late seedings of grasses and alfalfa were made, crested wheatgrass being sown both with the furrow drill and the ordinary disk drill under several different types of soil and tillage conditions. A comparative seeding of winter wheat with both the furrow and the ordinary drill was sown also.

Maximum temperature, 61°; minimum, 25°; precipitation, 0.10 inch.

DICKINSON:

Light snow which fell early in the week as well as 0.33 inch during the previous week has melted and disappeared. The soil is drier than ever before observed here at this date. Usually grasses green up some in October, but there is now no sign of green on any species. Crested wheatgrass started growth after the showers in August, but the moisture was quickly used up and there has not been enough since to start growth. Late fall seedings of crested wheatgrass were made on fallow and in stubble with furrow drill and common drill on October 26.

Visitors this week were Dr. F. L. Duley, Soil Conservation Research Manhattan, Kans.; M. D. Avery, Secretary, Federal Land Bank, St. Paul, Minn.; Edgar Wright, Special Representative, Land Bank Commissioner, Goss, Spokane, Wash.; and C. P. Kjelstrup, Service Man, National Farm Loan Association, Parshall, N. Dak.

Maximum temperature, 67°; minimum, 8°; precipitation, 0.06 inch. Precipitation, October, 0.39 inch; Precipitation 10 months in 1936, 5.44 inches.

MANDAN:

Agronomy - Weather during the past week has been mild and pleasant for the most part, in contrast to the preceding week which was raw and cold with about half an inch of snow, as well as some rain.

For the week ending October 24 the maximum was 79°; minimum, 6°; precipitation, 0.11 inch. For the week ending October 31, maximum temperature, 68°; minimum, 6°; precipitation, trace.

Arboriculture - Field work for the year has been practically completed. The mulching of conifer seed beds and the cleaning and stratifying of seed have been in progress during the week.

BELLE FOURCHE:

Raw, unsettled weather during the fore part of the week was followed by 3 days of moderate temperatures and clear skies, but it was snowing heavily as the week ended. The soil became sufficiently dry to permit the resumption of plowing on October 27. Other field work on the dry land rotation field included raking and burning weeds, taking soil samples for nitrogen determinations, and seeding fall grain. Soil moisture conditions are unusually favorable for the germination of winter wheat and rye, but additional precipitation will be needed to carry the grain through the winter.

Maximum temperature, 67°; minimum, 20°; precipitation, 0.13 inch.

ARCHER:

The weather during the greater part of the week was clear and pleasant. During the first two days of the week 0.39 inch of precipitation occurred in the form of rain and snow. To date the total precipitation for October is 0.65 inch, which is slightly less than 65 percent of the 23-year average. However, the seed of winter cereals, which has laid in dry soil, has germinated and some has emerged. The precipitation moistened all dry soil on fallowed land, thus giving a better outlook for winter cereals.

Work at the station consisted of making preparations for winter. The bean ground in the experimental field is being ridged today. Most of the seasonable labor has been discontinued for the winter.

Maximum temperature, 63°; minimum, 21°; precipitation, 0.41 inch.

NORTH PLATTE:

The weather was mostly fair during the week with high winds on Friday. Freezing temperatures were recorded every night. Precipitation for the month was 0.34 inch, and the total for the months of September and October was 0.82 inch.

The shocking of the corn on the D.L.A. plots was completed this week. Yields were very poor, ranging from 1 to 10 bushels per

acre. Harvesting of the corn variety plots has been started, the quality and yields are poor.

Maximum temperature, 65°; minimum, 15°; precipitation, none.

AKRON:

Snowfall early in the week prevented any threshing. Corn has about all been husked. Inclement weather forced inside work. The total precipitation for October was 0.94 inch, practically equal to the normal of 1.00 inch. Beans and the sorghums remain in the field. The October precipitation falling as snow has continually kept these crops too tough to thresh.

Soil moisture conditions are the best at the beginning of the winter that they have been for several years past. Winter wheat has made no appreciable progress in growth, and it is now getting too late to expect much further growth. Soil blowing may become a problem next spring, though at the present time the surface tilth is in good condition to resist.

Hurley Fellows arrived this week end to carry on foot rot studies with winter wheat.

Maximum temperature, 70°; minimum, 23°; precipitation, 0.34 inch.

COLBY:

The weather this week has been rather pleasant, except Sunday when it was cold and rainy and yesterday when it was very windy and dusty. Yesterday there was considerable soil blowing on bare fields. For several nights there were rather heavy frosts, so that wheat did not make much growth. It has, however, made considerable growth during the last three days when high temperatures prevailed. It does not nearly cover the ground yet, in most places.

The late fall tillage was done Thursday. The ground was wet to the depth of plowing and listing and turned up fairly mellow.

Maximum temperature, 71°; minimum, 19°; precipitation, 0.23 inch.
Precipitation for October, 0.45 inch; 49-year average, 1.07 inches.
Precipitation, January to October, 10.47 inches; 49-year average, 16.38 inches.

HAYS:

The weather has been generally cool and partly cloudy. The first killing frost, October 22, and low temperatures following killed all feed crops not previously harvested and the foliage on all deciduous trees and shrubs.

Soil condition has been favorable for germination of wheat, which has been up for some time and has made a fair growth on all plots. All sorghums on the project have been harvested, and most of the tillage work has been finished for the season. Work on the commercial fields during the past two weeks has consisted largely of harvesting sorghums, filling silos, and threshing alfalfa seed.

Maximum temperature, 88°; minimum, 23°; precipitation, 0.91 inch.

GARDEN CITY:

One rain this week, last Saturday and Sunday, amounted to 0.48 inch. This Friday the wind velocity reached 19.5 miles per hour, causing a slight dust storm.

The new two-row damming lister (McCormick-Deering) was tried out on Friday, on the State project, and it did a very neat job, but it may be rather clumsy for plot work.

Soil samples were taken on the MF milo plots L and M, on the MC milo plots A and B, and on the milo diked plot.

Maximum temperature, 71°; minimum, 25°; precipitation, 0.48 inch.

TUCUMCARI:

Cloudy weather has characterized the past week, but no moisture was received. The lowest thermometer reading of the fall was 30° ten days ago. Leaves of sorghums were nearly all killed, although this was not a severe frost. During the week fall plowing was performed, peanuts were harvested, corn was weighed and husked, small stacks of alfalfa were hulled, and milo plots and increase blocks were headed. Grain yields of sorghums will average very low, and it is doubtful of shocks will be sufficiently cured to permit completion of threshing before the close of November.

Maximum temperature, 68°; minimum, 33°.

DALHART:

Another drought record is broken for this station as the climatic data for October is completed. October precipitation was 0.07 inch, which makes the total since July an even 3 inches. This amount is the least ever received for these 4 months. It makes the first fall during the current 4 years' drought when wheat and rye could not be expected to emerge to stands. The rotation plots of these crops were seeded in dry soil on the last day of the month.

Field work was nearly completed during the month. There remains about 1 day's threshing, 2 days stover weighing, and 2 days of plowing to complete the fall field work.

During this last week of the month several freezes finished killing vegetation. October with a mean temperature of 53° was 2° cooler than normal. Wind velocities were slightly above normal, and the precipitation was negligible. Precipitation for the year to the end of October was 9.50 inches, which is 7.25 inches below normal.

Among station visitors during the week were some 25 SCS men from the various SCS projects in this region and from the Regional Office.

Maximum temperature, 70°; minimum, 26°.

BIG SPRING:

With the exception of one day this week, damp, cloudy weather has prevailed. Milo heading has not been attempted, and only on two days has it been dry enough to pick cotton. There was just enough fine mist to keep all vegetation damp enough to prevent any harvesting.

Station work has consisted of installing an electric motor at the feeding plant and cleaning corrals. The winter wheat plots were planted during the week. With a few days of warm weather now, good stands should be obtained, as soil moisture conditions were very favorable.

Maximum temperature, 85°; minimum, 45°; precipitation, 0.08 inch.

LAWTON:

The growing season of 1936 was definitely terminated by a minimum temperature of 29° and a killing frost on the 26th of October. The average date of the first killing frost is November 4. Cotton leaves and the foliage on late planted sorghums were killed. The minimum temperature range during the week extended from 29° to 59°, and the maximum ranged from 45° to 74°. Precipitation was recorded on 11 dates during the month, but the monthly total was only 0.73 inch, which was 2.28 inches below normal.

About 5 acres of Atlas sorgo planted very late in the spring produced a good yield of forage but no grain. The M.C. sorgo plots and the L.M. kafir plots were harvested November 4. A few scattering attempts at heading were evident in both crops, but grain production was a total failure.

Feterita grown in the rotation plots failed to produce either forage or grain, except in rotation 205. Fairly good stands were evident throughout the season, but the severe summer drought rendered growth ineffectual. All feterita plantings were made May 6, and all plots except rotation 205 were replanted on the 18th. The forage yield of feterita on green manure in rotation 205 was 1,600 pounds per acre. Farm operations during the past week were confined to fall plowing and listing on increase fields.

Harvest of the cotton crop throughout this part of the State is 85 to 90 percent completed. Early planted and volunteer crops of wheat, oats, and barley are furnishing a good deal of badly needed pasture.

PENDLETON:

Dry weather still prevails in the Columbia River Basin. Total rainfall for October at this station was 0.12 inch. Seeding of winter wheat on the rotation and tillage plots was completed this week. Some of the wheat may emerged before rains, as some moisture was turned up while drilling. The majority of the farmers are waiting for rains. If they do not come soon, the major part of the wheat in this area will be spring sown.

Maximum temperature, 61°; minimum, 19°; precipitation, none.
Total precipitation for October, 0.12 inch.

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N O T E

This is the last weekly issue in 1936. During November, December, January, February, and March the news letter will be issued monthly. Following the report for April 1 - 10, weekly issues will be resumed.

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